

Table 3-6a
95 Percent Upper Confidence Limit (95UCL) Bioaccumulation Factors
Upland Areas
Investigation Area H1 Feasibility Study
Mare Island, Vallejo, California

Analyte ¹	Earthworm		Mammal		Plant	
	Wet weight basis	Dry weight basis	Wet weight basis	Dry weight basis	Wet weight basis	Dry weight basis
Inorganics						
Aluminum ⁵	2.25E-02	1.41E-01	3.54E-03	1.11E-02	1.86E-03	2.03E-03
Antimony ⁴	4.35E-02 *	2.72E-01	3.90E-01 *	1.22E+00	--	--
Arsenic ^{3,4}	2.95E-01	1.84E+00	--	--	--	--
Barium ⁵	3.62E-02	2.26E-01	3.01E-02	9.41E-02	6.11E-02 *	6.68E-02
Cadmium ³	5.29E-01	3.31E+00	--	--	--	--
Chromium ^{3,4}	4.16E-02	2.60E-01	8.33E-03 *	2.60E-02	--	--
Cobalt ⁴	--	--	--	--	--	--
Copper^{2,4}	6.21E-02	3.88E-01	1.11E-01	3.45E-01	--	--
Lead^{2,4}	4.48E-02	2.80E-01	1.95E-01	6.10E-01	1.11E-02 *	1.21E-02
Manganese ^{3,4}	2.68E-02	1.68E-01	--	--	2.65E-02	2.89E-02
Mercury ⁴	--	--	--	--	--	--
Molybdenum ⁴	--	--	--	--	3.17E+00 *	3.47E+00
Nickel ^{3,4}	--	--	--	--	--	--
Selenium^{2,4}	6.78E-01 *	4.24E+00	1.96E+00	6.12E+00	--	--
Silver ⁴	7.73E+00	4.83E+01	--	--	--	--
Thallium ⁴	--	--	3.23E-01 *	1.01E+00	--	--
Tin ⁵	--	--	--	--	--	--
Vanadium ^{3,4}	2.58E-02	1.61E-01	--	--	--	--
Zinc^{2,4}	1.15E-01	7.20E-01	3.54E-01	1.11E+00	1.01E-01	1.11E-01
Organics						
Total PCBs^{2,4}	1.07E+00	6.69E+00	5.79E+00	1.81E+01	1.82E-01 *	1.99E-01
Dioxins²	--	--	--	--	--	--
Total DDTs²	1.16E+00	7.27E+00	3.34E-01	1.04E+00	1.37E+01 *	1.50E+01
Anthracene ⁵	--	--	--	--	--	--
Benzo(a)anthracene ⁴	--	--	--	--	--	--

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	Wet weight basis	Dry weight basis	Wet weight basis	Dry weight basis	Wet weight basis	Dry weight basis
Benzo(a)pyrene ^{3,4}	5.36E-03	*	3.35E-02	--	--	--
Benzo(b)fluoranthene ⁴	3.28E-03	*	2.05E-02	--	--	2.35E-01 *
Benzo(k)fluoranthene ⁴	--	--	--	--	--	--
Benzo(g,h,i)perylene ⁵	1.28E-02	*	7.98E-02	--	--	2.03E-01 *
Chrysene ⁵	6.82E-03	*	4.26E-02	--	--	--
Fluoranthene ⁵	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene ⁵	9.09E-03	*	5.68E-02	--	--	--
Phenanthrene ⁵	--	--	--	--	9.57E-02	1.05E-01
Pyrene ⁵	4.89E-02		3.06E-01	--	--	--

Notes:

*based on maximum bioaccumulation factor (BAF) because 95UCL exceeds maximum or insufficient sample size

Dry Weight BAF = Wet weight BAF / (1-% moisture)

%moisture = 68% for small mammals; 84% for earthworms; 8.5% for plants

1 - Chemicals listed in this table were identified as exhibiting at least one concentration that was considered a data outliers and/or risk drivers identified in the ecological risk assessment.

2 - The chemicals identified as risk drivers from the baseline ecological risk assessment are denoted as italicized and bold.

3 - Chemicals that present potential or significant or immediate risk to upland receptors; however, the 95UCL concentrations of the chemicals in soil are lower than ambient concentrations.

4 - Chemicals identified with at least one outlier concentration.

5 - BAFs were developed for these wetland constituents because the great blue heron, gray fox, and northern harrier can consume them in either habitat.